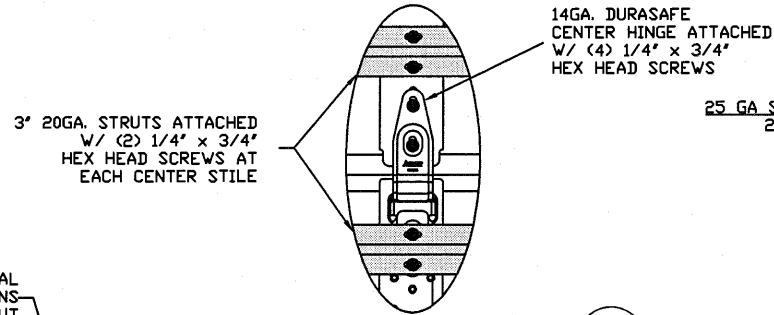


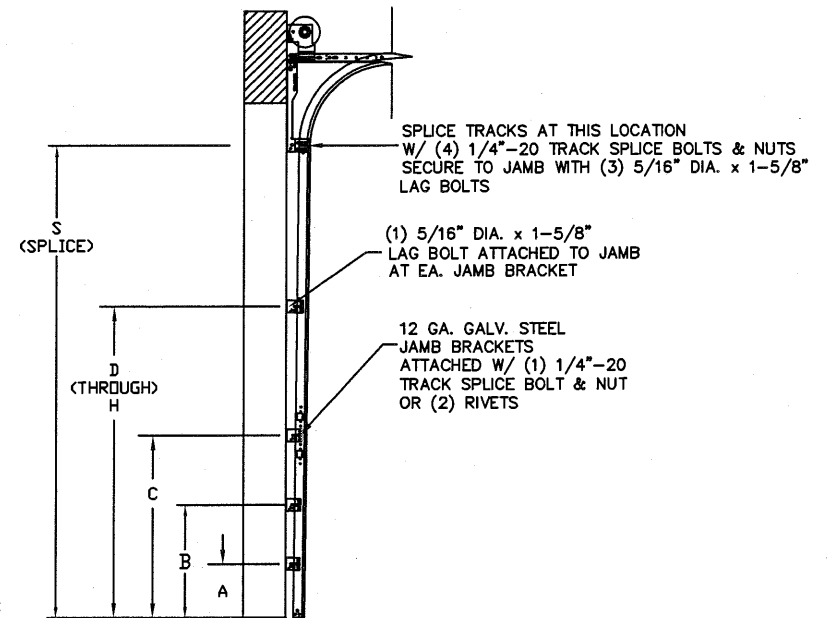
TYPICAL TOP FIXTURES
N.T.S.



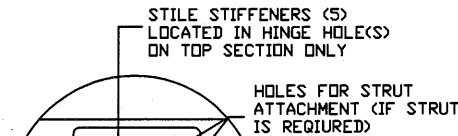
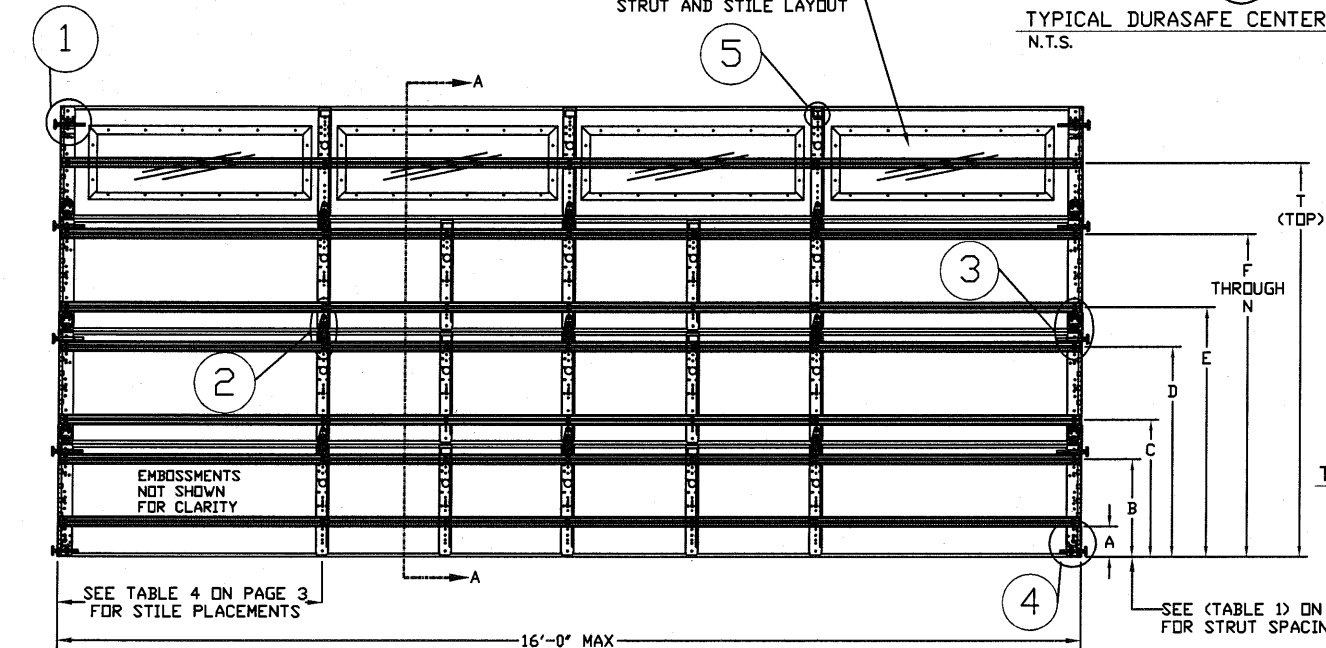
TYPICAL DURASAFE CENTER HINGE
N.T.S.

25 GA SKIN (M600 & M650)
24 GA SKIN (M950)

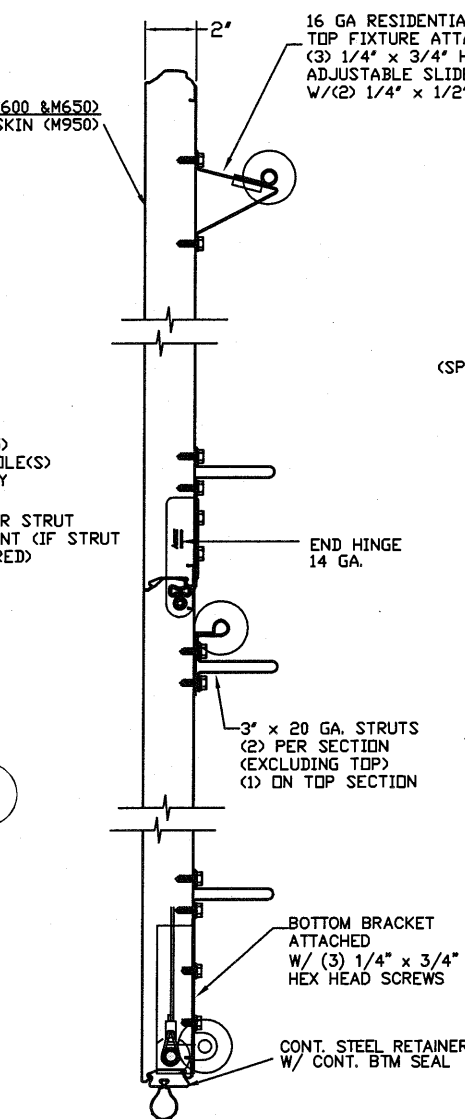
16 GA RESIDENTIAL TOP FIXTURE ATTACHED W/ (3) 1/4" x 3/4" HEX HEAD SCREWS
ADJUSTABLE SLIDE BRACKET ATTACHED W/ (2) 1/4" x 1/2" BOLT AND NUTS



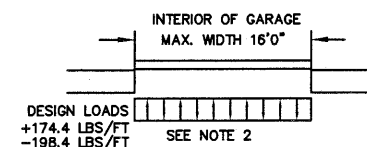
TRACK CONFIGURATION FOR 6'6" UP TO 14' TALL DOORS
N.T.S.



TYPICAL STILE STIFFENER
N.T.S.



SECTION A-A (SIDE VIEW)
N.T.S.

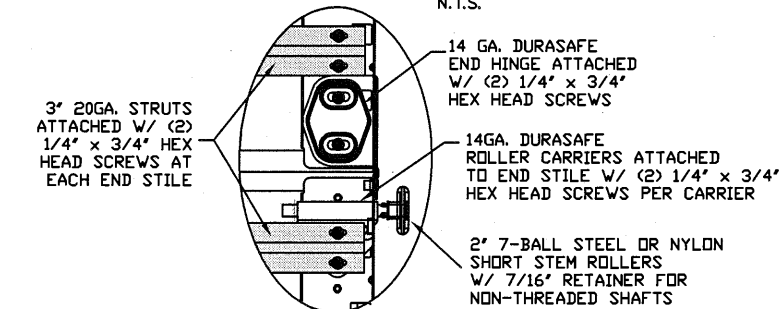


SPECIFICATIONS AND NOTES

- ALL THE LOAD FROM THE DOOR IS TRANSFERRED TO THE VERTICAL TRACK, FROM THE TRACK THE LOAD IS TRANSFERRED TO THE VERTICAL JAMBS. THE HORIZONTAL JAMB OR HEADER RECEIVES NO PORTION OF THE LOAD TRANSFERRED FROM THE DOOR.
- EACH VERTICAL JAMB RECEIVES MAXIMUM DESIGN LOADS OF: +174.4 LBS/FT & -198.4 LBS/FT
- DOORS AND HARDWARE WILL BE DESIGNED, MANUFACTURED AND INSTALLED WITH STANDARDS AS SET FORTH BY DASMA.
- DOOR SECTIONS SHALL BE 25 GA. MIN. (.019") ROLLED FORMED LIGHT COMMERCIAL QUALITY
- SUPPORTING STRUCTURAL ELEMENTS SHALL BE DESIGNED BY A REGISTERED PROFESSIONAL ENGINEER FOR WIND LOADS INDICATED ON THIS DRAWING IN ADDITION TO OTHER LOADINGS.
- REFER TO TABLES ON THE PAGE 3 FOR ADDITIONAL DOOR WIDTHS AND THEIR DESIGN PRESSURES

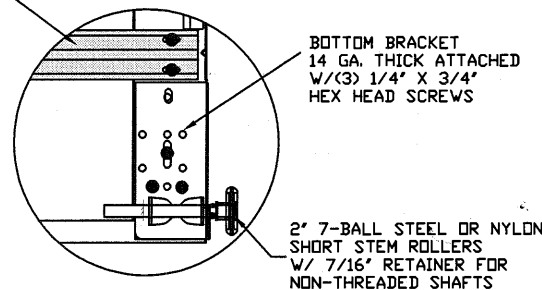
THE METHOD OF TESTING WAS IN SUBSTANTIAL CONFORMANCE WITH THE PROCEDURE DESCRIBED IN ASTM E330 AND DASMA 108. THE PRESSURES SHOWN ON THE DRAWINGS WERE CALCULATED USING ASCE 7-98/02/05 WITH THE FOLLOWING PARAMETERS (5 FEET OF DOOR WIDTH IN THE END ZONE, ROOF AT ANY SLOPE, AND I=1.0):

WIND SPEED (MPH)	120	109	104	99	95
EXPOSURE LEVEL	B	C	C	D	D
MEAN ROOF HEIGHT	30'	15'	25'	15'	25'

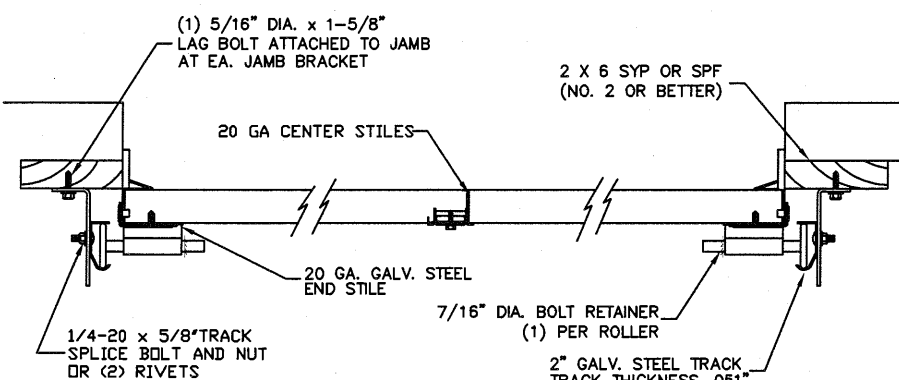


TYPICAL DURASAFE END HINGE
N.T.S.

3" 20GA. STRUT ATTACHED W/ (2) 1/4" x 3/4" HEX HEAD SCREWS AT END AND CENTER STILES



TYPICAL BOTTOM BRACKET
N.T.S.



TRACK MOUNTING DETAIL
N.T.S.

REV	DESCRIPTION OF REVISIONS	DATE	BY
A	UPDATED BOTTOM BRACKET INFORMATION ADDED OAKSUMMIT AND GLAZING OPTIONS	07/05/05	DLJ
B	REVISED NOTE 6	09/02/08	DLJ
C	REMOVED TABLE 5, NOTE 7	05/25/09	CBT
D	WIND SPEED TABLE & TRACK CONFIGURATIONS	04/17/12	RLR
E	ADDED NYLON ROLLERS/CHANGED JAMB BRACKETS UPDATED GLAZING OPTIONS	11/6/12	RLR

MAX SIZE
16' WIDTH
14' HEIGHT
(DOOR HEIGHT SUBJECT TO WEIGHT LIMITATIONS)

DESIGN LOADS
+21.8 PSF
-24.8 PSF

TEST LOADS
+32.7 PSF
-37.2 PSF

Thomas L. Shelmerdine, PE (TX PE #85829)
Structural Solutions, PA (TX Firm #F-004063)

TX

dba Structural Solutions of North Carolina, Inc.
5921-G W. Friendly Ave., Greensboro, NC 27410

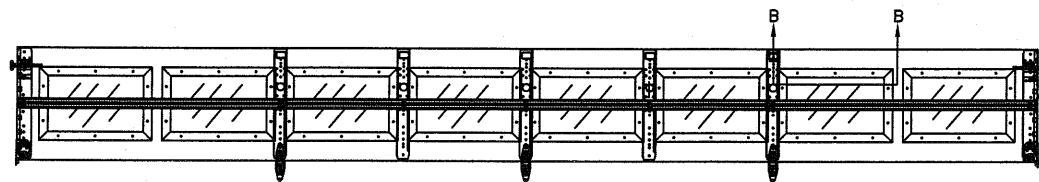
Amarr

165 CARRIAGE COURT WINSTON-SALEM, N.C. 27105

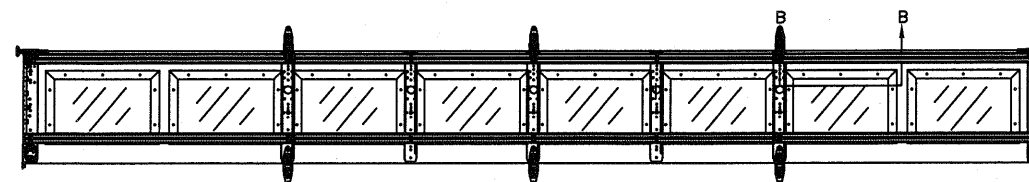
MODEL #650 OAK SUMMIT w/DuraSafe
MODEL #600 STRATFORD w/DuraSafe
MODEL #950 HERITAGE w/DuraSafe
Short, Long, Flush & Oak Summit Panel's

SIZE	DRAWN BY	DLJ	DATE	04/15/03	DRAWING NUMBER
B	CHECKED BY	AAE	DATE	04/15/03	IRC-6016-120-15

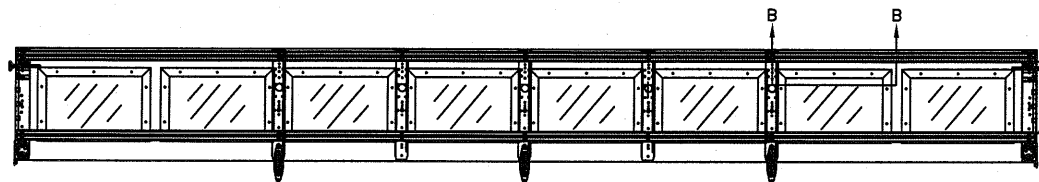
SHEET 1 OF 3



3" 20GA. STRUT LOCATED IN THE MIDDLE OF GLAZED SECTION ATTACHED W/(2) 1/4" X 3/4" HEX HEAD SCREWS AT END AND CENTER STILES

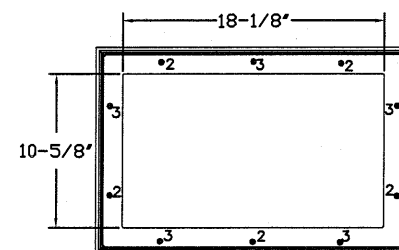


OPTIONAL SHORT PANEL INTERMEDIATE GLAZED SECTION (STRUT AND STILE LAYOUT)

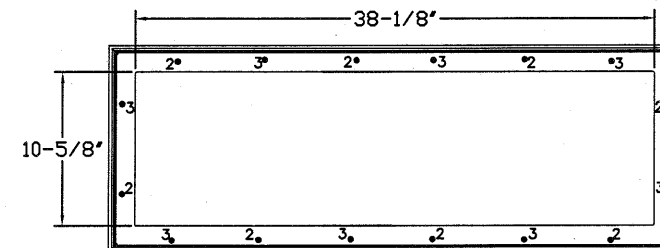


OPTIONAL SHORT PANEL TOP GLAZED SECTION (STRUT AND STILE LAYOUTS)

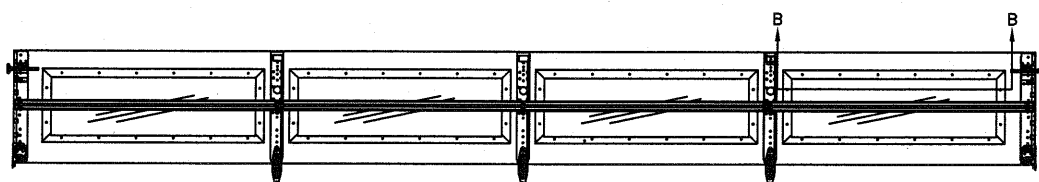
3" 20GA. STRUT LOCATED ON THE TOP AND BOTTOM OF GLAZED SECTION ATTACHED W/(2) 1/4" X 3/4" HEX HEAD SCREWS AT END AND CENTER STILES



SHORT PANEL GLAZING FASTENER DETAIL
N.T.S.

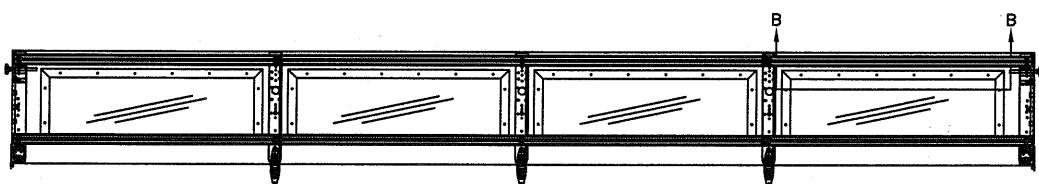


LONG PANEL GLAZING FASTENER DETAIL
N.T.S.



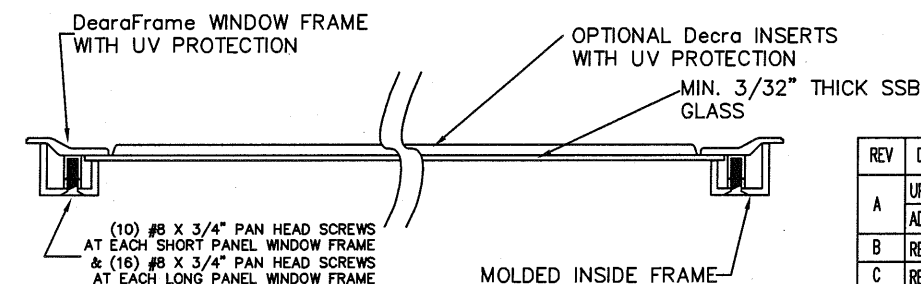
OPTIONAL LONG PANEL TOP GLAZED SECTION (STRUT AND STILE LAYOUTS)

LONG PANEL GLAZING OPTION AVAILABLE ONLY ON DOORS 15'6" THROUGH 16'0" WIDE. DOORS LESS THAN 15'6" WIDE MUST USE SHORT PANEL GLAZING OR CLOSED SECTIONS

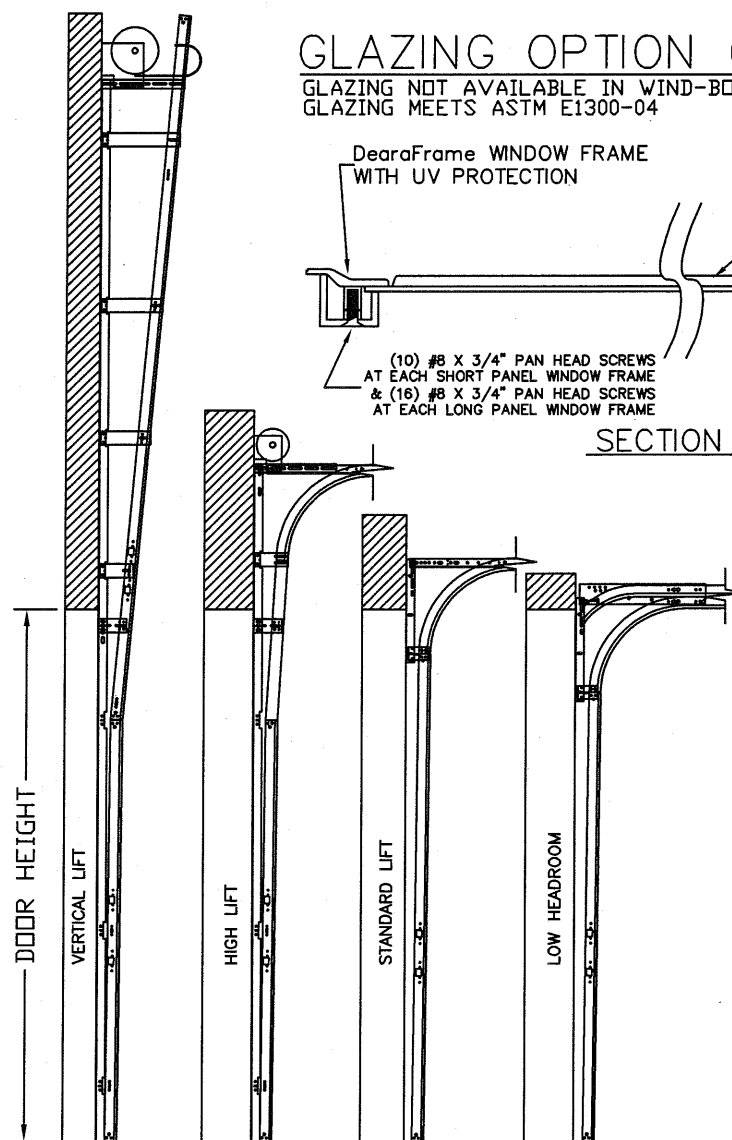


GLAZING OPTION CROSS SECTION

GLAZING NOT AVAILABLE IN WIND-BORNE DEBRIS REGION
GLAZING MEETS ASTM E1300-04



SECTION B-B



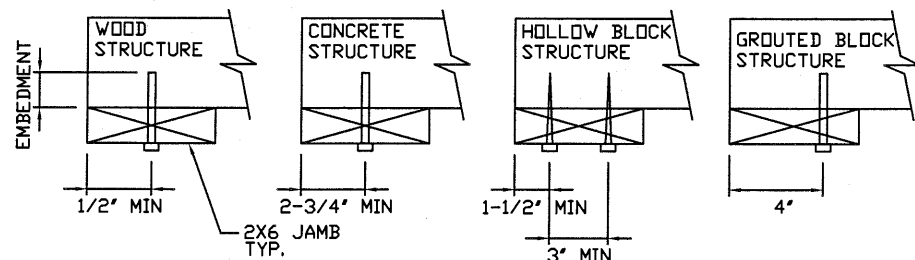
AVAILABLE TRACK CONFIGURATIONS
N.T.S.

WOOD JAMB ATTACHMENT TO STRUCTURE

2 X 6 VERTICAL JAMB ATTACHMENT TO WOOD FRAME STRUCTURE
5/16" X 3" LAG SCREWS STARTING 6" FROM ENDS THEN 24" O.C. (1 1/2" EMBEDMENT)
2 X 6 VERTICAL JAMB ATTACHMENT TO 2,000 PSI CONCRETE
HILTI KWIK BOLT 3/8" X 4" STARTING 6" FROM ENDS THEN 24" O.C. (2 1/2" EMBEDMENT)
HILTI SLEEVE ANCHOR 3/8" X 2-3/4" STARTING 6" FROM ENDS THEN 24" O.C. (1 1/4" EMBEDMENT)
ITW/RAMSET REDHEAD (TRU-BOLT) 3/8" X 4" STARTING 6" FROM ENDS THEN 24" O.C. (2 1/2" EMBEDMENT)
2 X 6 VERTICAL JAMB ATTACHMENT TO HOLLOW C-90 BLOCK
SIMPSON 1/4" X 3" TITEN SCREWS STARTING 6" FROM ENDS, USE PAIRS OF FASTENERS (3" APART) AT 16" O.C. (1 1/2" EMBEDMENT)
HILTI 1/4" X 2-3/4" KWIK-CON II+ SCREWS STARTING 6" FROM ENDS, USE PAIRS OF FASTENERS (3" APART) AT 16" O.C. (1 1/4" EMBEDMENT)

2 X 6 VERTICAL JAMB ATTACHMENT TO GROUTED C-90 BLOCK (2000 PSI GROUT)
HILTI SLEEVE ANCHOR 3/8" X 2-3/4" STARTING 6" FROM ENDS THEN 24" O.C. (1 1/4" EMBEDMENT) (OR, USE FASTENERS FOR HOLLOW C-90 BLOCK)

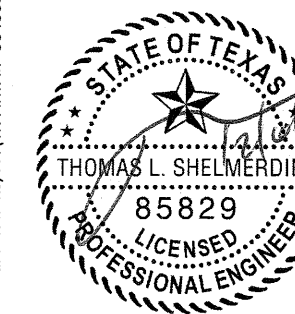
*LAGS AND BOLTS CAN BE COUNTERSUNK TO PROVIDE A FLUSH MOUNTING SURFACE.
*PREPARATION OF WOOD JAMBS BY OTHERS



REV	DESCRIPTION OF REVISIONS	DATE	BY
A	UPDATED BOTTOM BRACKET INFORMATION ADDED OAKSUMMIT AND GLAZING OPTIONS	07/05/05	DLJ
B	REVISED NOTE 6	09/02/08	DLJ
C	REMOVED TABLE 5, NOTE 7	05/25/09	CBT
D	WIND SPEED TABLE & TRACK CONFIGURATIONS	04/17/12	RLR
E	ADDED NYLON ROLLERS/CHANGED JAMB BRACKETS UPDATED GLAZING OPTIONS	11/6/12	RLR

MAX SIZE
16" WIDTH
14" HEIGHT
(DOOR HEIGHT
SUBJECT TO
WEIGHT LIMITATIONS)
DESIGN LOADS
+21.8 PSF
-24.8 PSF
TEST LOADS
+32.7 PSF
-37.2 PSF

Thomas L. Shelmerdine, PE (TX PE #85829)
Structural Solutions, PA (TX Firm #004063)



dba Structural Solutions of North Carolina, Inc.
5921-G W. Friendly Ave., Greensboro, NC 27410

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MODEL #650 OAK SUMMIT w/DuraSafe
MODEL #600 STRATFORD w/DuraSafe
MODEL #950 HERITAGE w/DuraSafe
Short, Long, Flush & Oak Summit Panel's

SIZE	DRAWN BY	DLJ	DATE	04/15/03	DRAWING NUMBER
B	CHECKED BY	AAE	DATE	04/15/03	IRC-6016-120-15

TABLE 1

DOOR HEIGHT	STRUT SPACING (BASED ON RECOMMENDED SECTION CONFIGURATION)														TOP	
	A	B	C	D	E	F	G	H	I	J	K	L	M	N		T
6' 6"	5 1/2"	18 1/4"	25 1/2"	36 1/4"	43 1/2"	54 1/4"										67 1/2"
7' 0"	5 1/2"	18 1/4"	25 1/2"	39 1/4"	46 1/2"	60 1/4"										73 1/2"
7' 6"	5 1/2"	15 1/4"	22 1/2"	33 1/4"	40 1/2"	51 1/4"	58 1/2"	69 1/4"								81"
8' 0"	5 1/2"	18 1/4"	25 1/2"	36 1/4"	43 1/2"	54 1/4"	61 1/2"	72 1/4"								85 1/2"
8' 6"	5 1/2"	18 1/4"	25 1/2"	39 1/4"	46 1/2"	60 1/4"	67 1/2"	78 1/4"								91 1/2"
9' 0"	5 1/2"	15 1/4"	22 1/2"	33 1/4"	40 1/2"	51 1/4"	58 1/2"	69 1/4"	76 1/2"	87 1/4"						99"
9' 6"	5 1/2"	18 1/4"	25 1/2"	36 1/4"	43 1/2"	54 1/4"	61 1/2"	72 1/4"	79 1/2"	90 1/4"						103 1/2"
10' 0"	5 1/2"	18 1/4"	25 1/2"	39 1/4"	46 1/2"	60 1/4"	67 1/2"	78 1/4"	85 1/2"	96 1/4"						109 1/2"
10' 6"	5 1/2"	18 1/4"	25 1/2"	39 1/4"	46 1/2"	60 1/4"	67 1/2"	81 1/4"	88 1/2"	102 1/4"						115 1/2"
11' 0"	5 1/2"	18 1/4"	25 1/2"	36 1/4"	43 1/2"	54 1/4"	61 1/2"	72 1/4"	79 1/2"	90 1/4"	97 1/2"	108 1/4"				121 1/2"
11' 6"	5 1/2"	18 1/4"	25 1/2"	39 1/4"	46 1/2"	60 1/4"	67 1/2"	78 1/4"	85 1/2"	96 1/4"	103 1/2"	114 1/4"				127 1/2"
12' 0"	5 1/2"	18 1/4"	25 1/2"	39 1/4"	46 1/2"	60 1/4"	67 1/2"	81 1/4"	88 1/2"	102 1/4"	109 1/2"	120 1/4"				133 1/2"
12' 6"	5 1/2"	18 1/4"	25 1/2"	36 1/4"	43 1/2"	54 1/4"	61 1/2"	72 1/4"	79 1/2"	90 1/4"	97 1/2"	108 1/4"	115 1/2"	126 1/4"		139 1/2"
13' 0"	5 1/2"	18 1/4"	25 1/2"	39 1/4"	46 1/2"	60 1/4"	67 1/2"	81 1/4"	88 1/2"	102 1/4"	109 1/2"	120 1/4"	127 1/2"	138 1/4"		151 1/2"
14' 0"	5 1/2"	18 1/4"	25 1/2"	39 1/4"	46 1/2"	60 1/4"	67 1/2"	81 1/4"	88 1/2"	102 1/4"	109 1/2"	123 1/4"	130 1/2"	144 1/4"		157 1/2"

TABLE 2

DOOR HEIGHT	SECTION HEIGHTS							
	Btm	#2	#3	#4	#5	#6	#7	#8
14' 0"	21"	21"	21"	21"	21"	21"	21"	21"
13' 6"	21"	21"	21"	21"	21"	18"	18"	21"
13' 0"	21"	21"	21"	18"	18"	18"	18"	21"
12' 6"	21"	18"	18"	18"	18"	18"	18"	21"
12' 0"	21"	21"	21"	21"	21"	18"	21"	
11' 6"	21"	21"	21"	18"	18"	18"	21"	
11' 0"	21"	18"	18"	18"	18"	18"	21"	
10' 6"	21"	21"	21"	21"	21"	21"		
10' 0"	21"	21"	21"	18"	18"	21"		
9' 6"	21"	18"	18"	18"	18"	21"		
9' 0"	18"	18"	18"	18"	18"	18"		
8' 6"	21"	21"	21"	18"	21"			
8' 0"	21"	18"	18"	18"	21"			
7' 6"	18"	18"	18"	18"				
7' 0"	21"	21"	21"	21"				
6' 6"	21"	18"	18"	21"				

TABLE 3

DOOR HEIGHT	TRACK ATTACHMENT								SPLICE	
	A	B	C	D	E	F	G	H		S
6' 6"	10"	21"	38"	58"						70"
7'	10"	21"	38"	58"						76"
7' 6"	10"	18"	36"	54"	72"					82"
8'	10"	21"	39"	57"	75"					88"
8' 6"	10"	21"	42"	63"	81"					94"
9'	10"	18"	36"	54"	72"	90"				100"
9' 6"	10"	21"	39"	57"	75"	93"				106"
10'	10"	21"	42"	63"	81"	99"				112"
10' 6"	10"	21"	42"	63"	84"	105"				118"
11'	10"	21"	39"	57"	75"	93"	111"			124"
11' 6"	10"	21"	42"	63"	81"	99"	117"			130"
12'	10"	21"	42"	63"	84"	105"	123"			136"
12' 6"	10"	21"	39"	57"	75"	93"	111"	129"		142"
13'	10"	21"	42"	63"	81"	99"	117"	135"	148"	
13' 6"	10"	21"	42"	63"	84"	105"	123"	141"	154"	
14'	10"	21"	42"	63"	84"	105"	126"	147"	160"	

ALL TRACK ATTACHMENT SPACING +/-2" ALLOWED WITH SYP OR SPF NO. 2 OR BETTER ONLY

TABLE 4

Section Width (ft)	Panel Type	Center Stile Locations (Measured from Left Edge)				
		1st (in)	2st (in)	3rd (in)	4th (in)	5th (in)
10' 0"	Short	48.41	71.59			
10' 0"	Long	30.00	60.00	90.00		
10' 0"	Oak Summit	30.63	60.00	89.38		
12' 0"	Short	48.81	72.00	95.19		
12' 0"	Long	49.63	72.00	94.38		
12' 0"	Oak Summit	48.31	72.00	95.69		
12' 2"	Short	49.64	73.00	96.36		
12' 2"	Long	50.08	73.00	95.92		
12' 2"	Oak Summit	49.06	73.00	96.94		
12' 4"	Short	50.64	74.00	97.36		
12' 4"	Long	51.08	74.00	96.92		
12' 4"	Oak Summit	49.81	74.00	98.19		
12' 6"	Short	50.67	75.00	99.33		
12' 6"	Long	51.17	75.00	98.83		
12' 6"	Oak Summit	50.56	75.00	99.44		
12' 8"	Short	51.67	76.00	100.33		
12' 8"	Long	52.10	76.00	99.90		
12' 8"	Oak Summit	51.31	76.00	100.69		
12' 10"	Short	52.25	77.00	101.75		
12' 10"	Long	53.10	77.00	100.90		
12' 10"	Oak Summit	52.06	77.00	101.94		
13' 0"	Short	53.00	78.00	103.00		
13' 0"	Long	54.10	78.00	101.90		
13' 0"	Oak Summit	52.81	78.00	103.19		
13' 2"	Short	54.00	79.00	104.00		
13' 2"	Long	55.10	79.00	102.90		
13' 2"	Oak Summit	53.56	79.00	104.44		
13' 4"	Short	54.40	80.00	105.60		
13' 4"	Long	54.90	80.00	105.10		
13' 4"	Oak Summit	54.31	80.00	105.69		
13' 6"	Short	55.40	81.00	106.60		
13' 6"	Long	55.90	81.00	106.10		
13' 6"	Oak Summit	55.06	81.00	106.94		
13' 8"	Short	56.40	82.00	107.60		
13' 8"	Long	56.63	82.00	107.38		
13' 8"	Oak Summit	55.81	82.00	108.19		
13' 10"	Short	57.16	83.00	108.71		
13' 10"	Long	57.17	83.00	108.83		
13' 10"	Oak Summit	56.56	83.00	109.44		
14' 0"	Short	57.76	84.00	110.11		
14' 0"	Long	58.63	84.00	109.38		
14' 0"	Oak Summit	57.31	84.00	110.69		
14' 2"	Short	58.85	85.00	111.41		
14' 2"	Long	59.17	85.00	110.83		
14' 2"	Oak Summit	58.06	85.00	111.94		
14' 4"	Short	59.16	86.00	112.71		
14' 4"	Long	60.17	86.00	111.83		
14' 4"	Oak Summit	58.81	86.00	113.19		
14' 6"	Short	59.86	87.00	114.01		
14' 6"	Long	61.17	87.00	112.83		
14' 6"	Oak Summit	59.56	87.00	114.44		
14' 8"	Short	60.56	88.00	115.31		
14' 8"	Long	62.81	88.00	114.59	131.19	
14' 8"	Oak Summit	60.31	88.00	115.69		
14' 10"	Short	61.26	89.00	116.61		
14' 10"	Long	62.60	89.00	115.70	132.40	
14' 10"	Oak Summit	61.06	89.00	116.94		
15' 0"	Short	61.94	90.00	117.59	133.19	
15' 0"	Long	63.30	90.00	116.70	134.40	
15' 0"	Oak Summit	62.63	90.00	117.81	135.63	
15' 2"	Short	62.66	91.00	118.11	136.21	
15' 2"	Long	64.00	91.00	117.20	137.40	
15' 2"	Oak Summit	63.13	91.00	118.44	138.68	
15' 4"	Short	63.60	92.00	119.40		
15' 4"	Long	65.00	92.00	118.50	139.75	
15' 4"	Oak Summit	64.63	92.00	119.69	141.03	
15' 6"	Short	64.62	93.00	120.19	142.38	
15' 6"	Long	66.00	93.00	119.30	143.60	
15' 6"	Oak Summit	65.42	93.00	120.59	144.88	
15' 8"	Short	65.62	94.00	121.19	145.38	
15' 8"	Long	67.00	94.00	120.30	146.60	
15' 8"	Oak Summit	66.02	94.00	121.69	147.88	
15' 10"	Short	66.62	95.00	122.19	148.38	
15' 10"	Long	68.00	95.00	121.30	149.60	
15' 10"	Oak Summit	67.42	95.00	122.69	150.88	
16' 0"	Short	68.62	96.00	123.19	151.38	
16' 0"	Long	70.00	96.00	122.30	152.60	
16' 0"	Oak Summit	69.42	96.00	123.69	153.88	

^ Stiles do not need to be hinged

TABLE 5

Section Width (ft)	Panel Type	Max Design Loads Allowed	
		Positive (PSF)	Negative (PSF)
10' 0"	Short	29.1	33.1
10' 0"	Long	34.7	39.5
10' 0"	Oak Summit	34.7	39.5
12' 0"	Short	28.9	32.9
12' 0"	Long	28.9	32.9
12' 0"	Oak Summit	28.9	32.9
12' 2"	Short	28.5	32.5
12' 2"	Long	28.5	32.5
12' 2"	Oak Summit	28.5	32.5
12' 4"	Short	28.1	32.0
12' 4"	Long	28.1	32.0
12' 4"	Oak Summit	28.1	32.0
12' 6"	Short	27.8	31.6
12' 6"	Long	27.8	31.6
12' 6"	Oak Summit	27.8	31.6
12' 8"	Short	27.4	31.2
12' 8"	Long	27.4	31.2
12' 8"	Oak Summit	27.4	31.2
12' 10"	Short	27.0	30.8
12' 10"	Long	27.0	30.8
12' 10"	Oak Summit	27.0	30.8
13' 0"	Short	26.7	30.4
13' 0"	Long	26.7	30.4
13' 0"	Oak Summit	26.7	30.4
13' 2"	Short	26.4	30.0
13' 2"	Long	26.4	30.0
13' 2"	Oak Summit	26.4	30.0
13' 4"	Short	26.0	29.6
13' 4"	Long	26.0	29.6
13' 4"	Oak Summit	26.0	29.6
13' 6"	Short	25.7	29.2
13' 6"	Long	25.7	29.2
13' 6"	Oak Summit	25.7	29.2
13' 8"	Short	25.4	28.9
13' 8"	Long	25.4	28.9
13' 8"	Oak Summit	25.4	28.9
13' 10"	Short	25.1	28.5
13' 10"	Long	25.1	28.5
13' 10"	Oak Summit	25.1	28.5
14' 0"	Short	24.8	28.2
14' 0"	Long	24.8	28.2
14' 0"	Oak Summit	24.8	28.2
14' 2"	Short	24.5	27.9
14' 2"	Long	24.5	27.9
14' 2"	Oak Summit	24.5	27.9
14' 4"	Short	24.2	27.5
14' 4"			